Governor's Water Augmentation Council

Desalination Committee
November 6, 2017 Meeting Summary

Time: 1:00pm - 3:00pm

Location: Arizona Department of Water Resources

Welcome and Introductions

Chairman Robert Lotts called the meeting to order and welcomed those in attendance. All participants introduced themselves individually. The following member of the Governor's Water Augmentation Council (GWAC) was present: Wade Noble.

Proposed Activities Associated with Yuma Area Desalination

Committee member Chuck Cullom, a representative of the Central Arizona Water Conservation District (CAWCD), presented a summary of investigations into the possibility of desalinating brackish water sources in the Yuma area, specifically the Yuma groundwater mound. The presentation can be viewed here.

Discussion Regarding Yuma Next Steps

Chuck Cullom informed the committee that the hired consultant to conduct the investigation on the Yuma Brackish Groundwater Mound recommended conducting additional aquifer testing and water quality information to better inform preliminary design as well as pilot testing for pretreatment and reverse osmosis unit performance. Mr. Cullom estimated that this would be a six-month process. The brine from the desalination treatment is expected to flow into the Cienega de Santa Clara; it is recognized that this would require discussions with Mexico. Mr. Cullom noted that, under Title 1 of the Salinity Control Act, the Bureau of Reclamation has an obligation to operate the Yuma Desalination Plant.

There was discussion regarding optimization of well field locations with the dual benefit of reducing brackish groundwater elevations in the Yuma area and extracting a potential resource as well as recognition that additional discussions should focus on strengths and weaknesses of proposed locations, including the impacts to drainage.

Mr. Cullom proposed running scenarios utilizing the current model to explore reductions of the brackish groundwater mound supply should agricultural activities in the Yuma area decrease over time. Should agricultural activities remain consistent, the brackish groundwater mound is expected to stabilize at 30 feet below its current elevation.

Chairman Robert Lotts encouraged transparency regarding the beneficial and negative impacts of a Yuma groundwater mound brackish groundwater desalination project, as well as identifying what the local stakeholders would want or need from a project of this type.

Additional Information Regarding Brackish Groundwater in Winslow-Leupp Area

Zack Richards, a representative of ADWR, presented to the committee the results of research related to a possible brackish groundwater desalination project in the Winslow-Leupp area. The focus of the presentation was an appraisal level study conducted by the Bureau of Reclamation for the Navajo Nation and published in March 2015. This presentation can be viewed here.

Items for GWAC Meeting and Next Desalination Committee Agenda Items for the Governor's Water Augmentation Council

The Desalination Committee will update the Governor's Water Augmentation Council on the following: its engagement with Arizona Municipal Water Users Association members; a review of the groundwater modeling discussion on the West Salt River Valley; and a prioritized table of the areas of focus for the committee including the Winslow-Leupp Area, the West Salt River Valley, and the Yuma Brackish Groundwater Mound. The committee will also note that the committee chair has started engaging with stakeholders.

Items for Next Desalination Committee Meeting

Members of the West Valley Water Association will provide an introduction of their organization to the committee and discuss their interest in the desalination of brackish groundwater.

John Rasmussen, a representative of the Bureau of Reclamation, agreed to share the results of the West Salt River Valley Groundwater Flow Model with the committee upon its release to the public. He will also share a report with ADWR detailing a small scale solar desalination test facility on the Navajo Reservation.

Schedule the Following Meeting and Closing Remarks

The date and location for the next Desalination Committee meeting will be determined.